

Attorney Docket No. P12401

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application.

Listing of Claims

1-10. (Canceled)

11. (New) A method of controlling congestion in a cellular telecommunication system having a plurality of radio base stations, wherein each base station serves one or more cells in the system, said method comprising the steps of:

determining that a cell is congested; and

restricting call access for new call setup requests from user equipments located in the congested cell, said restricting step including the steps of:

determining by the base station serving the congested cell, carrier frequencies on which call accesses are permitted in the congested cell; and

broadcasting by the base station serving the congested cell, a call admission message to the user equipments located in the congested cell, said call admission message indicating the carrier frequencies on which call accesses are permitted in the congested cell.

12. (New) The method of claim 11, wherein the call admission message also indicates carrier frequencies on which call accesses are permitted in cells neighboring the congested cell.

13. (New) The method of claim 11, wherein the call admission message identifies cells neighboring the congested cell in which the permitted carrier frequencies are utilized.

14. (New) The method of claim 11, wherein the cellular telecommunication system also includes a centralized control unit that controls the plurality of base stations and determines the carrier frequencies on which call accesses are permitted, and the

Amendment - PAGE 3 of 11
EUS/J/P/04-8806

Attorney Docket No. P12401

method further comprises the step of retrieving by the base station serving the congested cell, the permitted carrier frequencies from the centralized control unit.

15. (New) A method of controlling congestion in a cellular telecommunication system having a plurality of radio base stations, wherein each base station serves one or more cells in the system, said method comprising the steps of:

determining that a cell is congested;

determining that a cell is congested; and

restricting call access for new call setup requests from user equipments located in the congested cell, said restricting step including the steps of:

determining by the base station serving the congested cell, carrier frequencies on which call accesses are permitted in the congested cell; and

broadcasting by the base station serving the congested cell, a call admission message to the user equipments located in the congested cell, said call admission message indicating the carrier frequencies on which call accesses are restricted in the congested cell.

16. (New) The method of claim 15, wherein the call admission message also indicates carrier frequencies on which call accesses are restricted in cells neighboring the congested cell.

17. (New) The method of claim 16, wherein the call admission message indicates carrier frequencies on which call accesses are prohibited in both the congested cell and in cells neighboring the congested cell.

18. (New) The method of claim 15, wherein the call admission message indicates a congestion status for at least one of the cells neighboring the congested cell.

19. (New) The method of claim 18, wherein the cellular telecommunication system also includes a centralized control unit that controls the plurality of base stations and stores the congestion status for each of the base stations, and the method further

Amendment - PAGE 4 of 11
EUS/JIP/04-8806

Attorney Docket No. P12401

comprises the step of retrieving from the centralized control unit, by the base station serving the congested cell, the congestion status of the cells neighboring the congested cell.

20. (New) In a base station in a cellular telecommunication system, a method of controlling congestion at call setup in a cell served by the base station, said method comprising the steps of:

determining that the cell is congested;

defining a power threshold value for the total interference level of the congested cell;

determining a total uplink interference level for uplink connections to the base station from user equipments located in the congested cell;

comparing the total uplink interference level with the power threshold value;

if the total uplink interference level exceeds the power threshold value, identifying carrier frequencies on which call accesses are permitted in cells neighboring the congested cell; and

broadcasting to the user equipments located in the congested cell, the carrier frequencies on which call accesses are permitted in cells neighboring the congested cell.

21. (New) In a user equipment located in a congested cell in a cellular telecommunication system, a method of obtaining call access to the system, said method comprising the steps of:

receiving from a base station serving the congested cell, a call admission message that includes an indication of carrier frequencies on which call accesses are permitted in the congested cell and in cells neighboring the congested cell;

analyzing the call admission message to determine whether there is a carrier frequency in the congested cell on which call accesses are permitted;

if there is a carrier frequency in the congested cell on which call accesses are permitted, requesting call access on the permitted carrier frequency;

Attorney Docket No. P12401

if there is not a carrier frequency in the congested cell on which call accesses are permitted, analyzing the call admission message to determine whether there is a carrier frequency in a cell neighboring the congested cell on which call accesses are permitted; and

if there is a carrier frequency in a cell neighboring the congested cell on which call accesses are permitted, requesting call setup on the carrier frequency in the cell neighboring the congested cell on which call accesses are permitted.